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United States
Environmental Protection
Agency

Solid Waste And
Emergency Response
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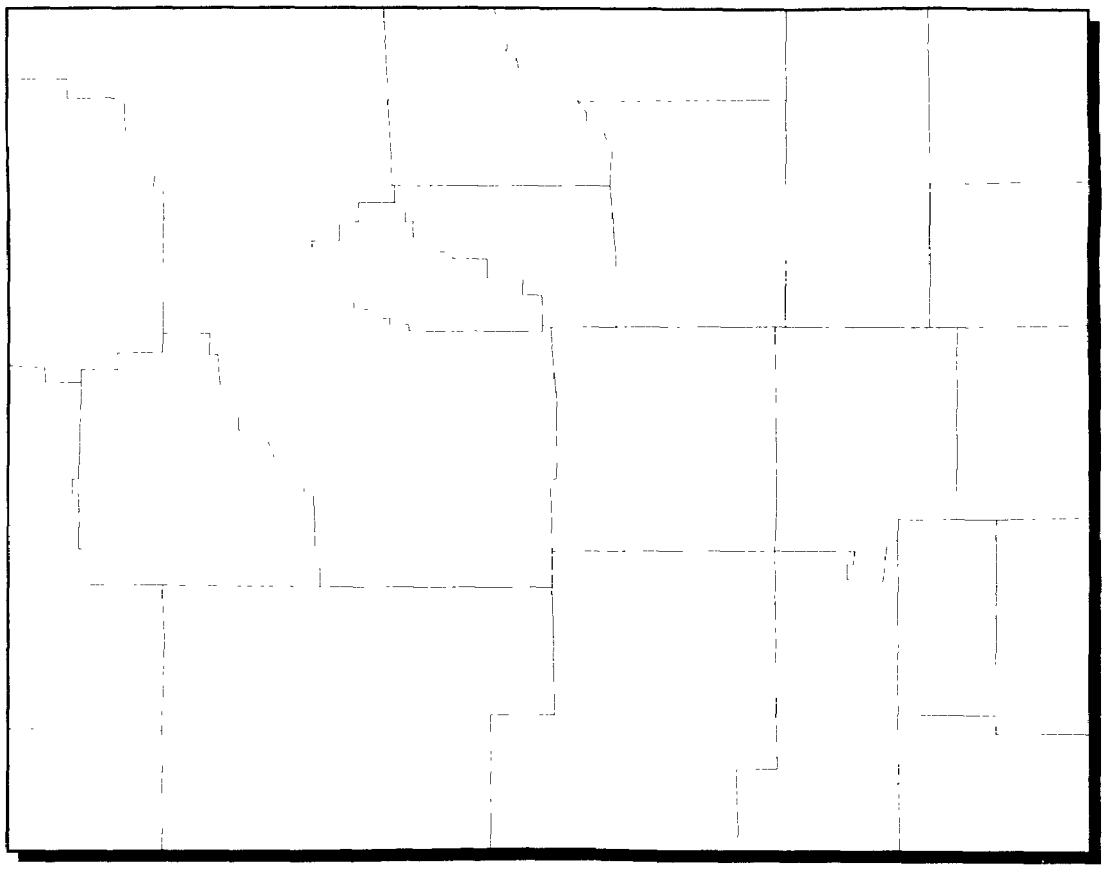
May 1995

SUPERFUND: Progress at National Priority List Sites



WYOMING 1995 UPDATE

Printed on Recycled Paper

How to Use the NPL Book

The site fact sheets presented in this book are comprehensive summaries that cover a broad range of information. The fact sheets describe hazardous waste sites on the NPL and their locations, as well as the conditions leading to their listing ("Site Description"). The summaries list the types of contaminants that have been discovered and related threats to public and ecological health ("Threats and Contaminants"). "Cleanup Approach" presents an overview of the cleanup activities completed, underway, or planned. The fact sheets conclude with a brief synopsis of how much progress has been made in protecting public health and the environment. The summaries also pinpoint other actions, such as legal efforts to involve polluters responsible for site contamination and community concerns.

The fact sheets are arranged in alphabetical order by site name. Because site cleanup is a dynamic and gradual process, all site information is accurate as of the date shown on the bottom of each page. Progress is always being made at NPL sites, and the EPA periodically will update the site fact sheets to reflect recent actions. The following two pages show a generic fact sheet and briefly describe the information under each section.

How Can You Use This State Book?

You can use this book to keep informed about the sites that concern you, particularly ones close to home. The EPA is committed to involving the public in the decision making process associated with hazardous waste cleanup. The Agency solicits input from area residents in communities affected by Superfund sites. Citizens are likely to be affected not only by hazardous site conditions, but also by the remedies that combat them. Site cleanups take many forms and can affect communities in different ways. Local traffic may be rerouted, residents may be relocated, temporary water supplies may be necessary.

Definitive information on a site can help citizens sift through alternatives and make decisions. To make good choices, you must know what the threats are and how the EPA intends to clean up the site. You must understand the cleanup alternatives being proposed for site cleanup and how residents may be affected by each one. You also need to have some idea of how your community intends to use the site in the future, and you need to know what the community can realistically expect once the cleanup is complete.

The EPA wants to develop cleanup methods that meet community needs, but the Agency only can take local concerns into account if it understands what they are. Information must travel both ways in order for cleanups to be effective and satisfactory. Please take this opportunity to learn more, become involved, and assure that hazardous waste cleanup at "your" site considers your community's concerns.

NPL LISTING HISTORY

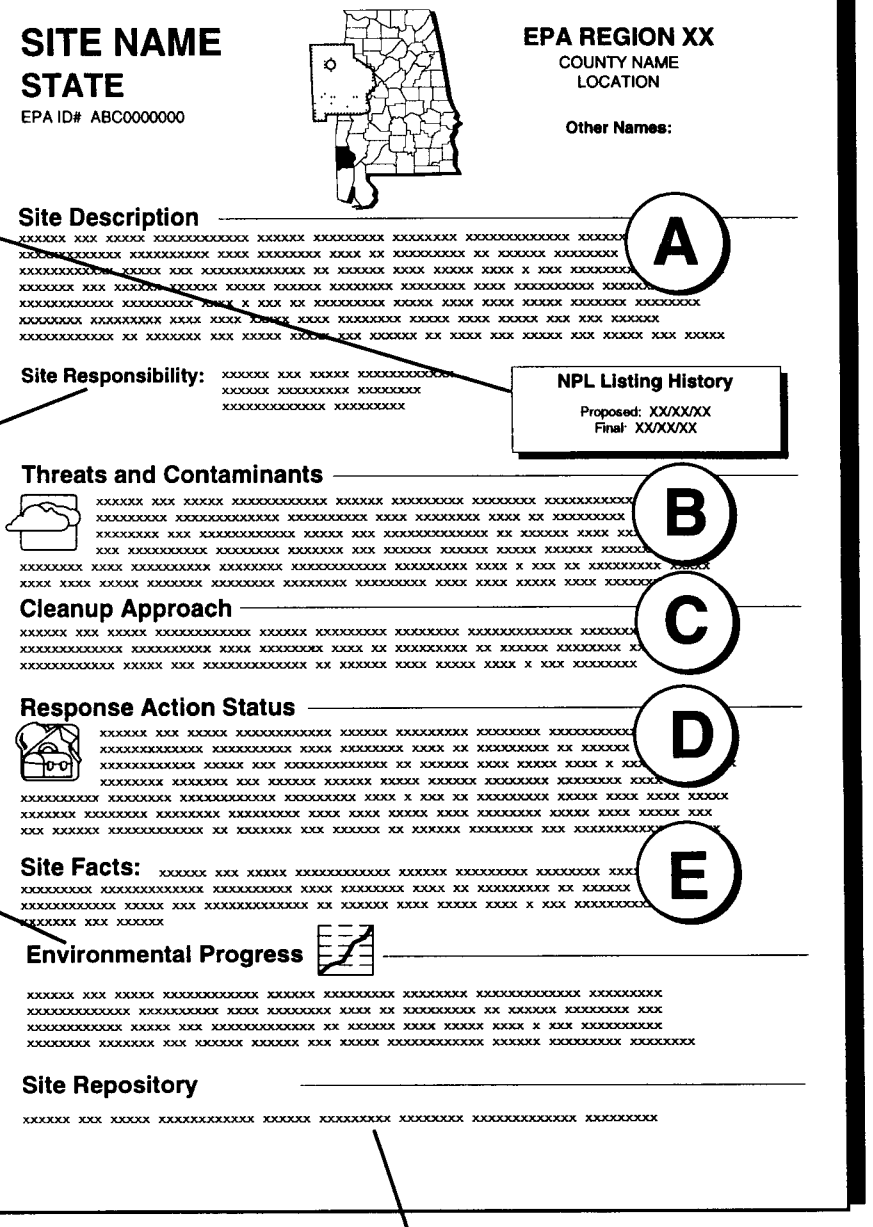
Provides the dates when the site was Proposed, made Final, and Deleted from the NPL.

SITE RESPONSIBILITY

Identifies the Federal, State, and/or potentially responsible parties taking responsibility for cleanup actions at the site.

ENVIRONMENTAL PROGRESS

Summarizes the actions to reduce the threats to nearby residents and the surrounding environment and the progress towards cleaning up the site.



SITE REPOSITORY

Lists the location of the primary site repository. The site repository may include community relations plans, public meeting announcements and minutes, fact sheets, press releases, and other site-related documents.

A

SITE DESCRIPTION

This section describes the location and history of the site. It includes descriptions of the most recent activities and past actions at the site that have contributed to the contamination. Population estimates, land usages, and nearby resources give readers background on the local setting surrounding the site.

B

THREATS AND CONTAMINANTS

The major chemical categories of site contamination are noted, as well as which environmental resources are affected. Icons representing each of the affected resources (may include air, groundwater, surface water, soil, and contamination to environmentally sensitive areas) are included in the margins of this section. Potential threats to residents and the surrounding environments arising from the site contamination also are described.

C

CLEANUP APPROACH

This section contains a brief overview of how the site is being cleaned up.

D

RESPONSE ACTION STATUS

Specific actions that have been accomplished or will be undertaken to clean up the site are described here. Cleanup activities at NPL sites are divided into separate phases, depending on the complexity and required actions at the site. Two major types of cleanup activities often are described: initial, immediate, or emergency actions to quickly remove or reduce imminent threats to the community and surrounding areas; and long-term remedial phases directed at final cleanup at the site. Each stage of the cleanup strategy is presented in this section of the summary. Icons representing the stage of the cleanup process (initial actions, site investigations, EPA selection of the cleanup remedy, engineering design phase, cleanup activities underway, and completed cleanup) are located in the margin next to each activity description.

E

SITE FACTS

Additional information on activities and events at the site are included in this section. Often details on legal or administrative actions taken by the EPA to achieve site cleanup or other facts pertaining to community involvement with the site cleanup process are reported here.

Guide to the NPL Book Icons

The "icons," or symbols, accompanying the text allow the reader to see at a glance which environmental resources are affected and the status of cleanup activities at the site.

Icons in the Threats and Contaminants Section

Contaminated *Groundwater* resources in the vicinity or underlying the site. (Groundwater is often used as a drinking water source.)

Contaminated *Surface Water and Sediments* on or near the site. (These include lakes, ponds, streams, and rivers.)

Contaminated *Air* in the vicinity of the site. (Air pollution usually is periodic and involves contaminated dust particles or hazardous gas emissions.)

Contaminated *Soil and Sludges* on or near the site. (This contamination category may include bulk or other surface hazardous wastes found on the site.)

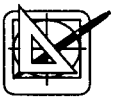
Threatened or contaminated *Environmentally Sensitive Areas* in the vicinity of the site. (Examples include wetlands and coastal areas or critical habitats.)

Icons in the Response Action Status Section

Initial, Immediate, or Emergency Actions have been taken or are underway to eliminate immediate threats at the site.

Site Studies at the site to determine the nature and extent of contamination are planned or underway.

Remedy Selected indicates that site investigations have been concluded, and the EPA has selected a final cleanup remedy for the site or part of the site.



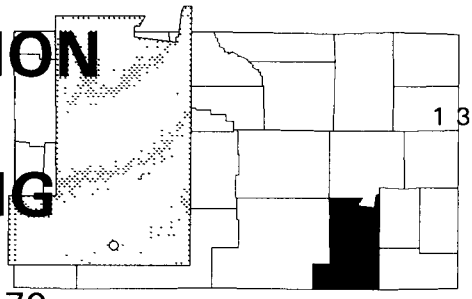
Remedy Design means that engineers are preparing specifications and drawings for the selected cleanup technologies.

Cleanup Ongoing indicates that the selected cleanup remedies for the contaminated site, or part of the site, currently are underway.

Cleanup Complete shows that all cleanup goals have been achieved for the contaminated site or part of the site.

EPA ID Number	Site Name
WYD061112470	BAXTER/UNION PACIFIC TIE TREATING
WY5571924179	F.E. WARREN AIR FORCE BASE
WYD981546005	MYSTERY BRIDGE RD/U.S. HIGHWAY 20

BAXTER/UNION PACIFIC TIE TREATING
WYOMING
EPA ID# WYD061112470



EPA REGION 8
Albany County
1 3/4 miles southwest of Laramie

Site Description

The Union Pacific Railroad (UPRR), or its contractor, treated railroad ties at the Baxter/Union Pacific Tie Treating site between 1886 and 1983, using various chemicals including zinc chloride, a mixture of creosote oil and an asphalt-based oil, and pentachlorophenol (PCP). During the operation's first 70 years, workers disposed of process wastes on site in waste collection ponds. Contamination outside these ponds was discovered in 1981 during groundwater monitoring required by the EPA. The groundwater beneath approximately 140 of the property's 700 acres currently is polluted with oils and wood treating chemicals. The railroad voluntarily ceased operations at the site in 1983. The City of Laramie has a population of 24,000. The public water supply for Laramie is affected by the site; the city uses a reservoir fed by the Laramie River several miles upriver. Contaminated water beneath the site is not used for drinking, and domestic private wells near the site were sampled and found clean.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

Groundwater, soil, and sediments contained numerous polycyclic aromatic hydrocarbons (PAHs) including PCP. PCP levels are higher downgradient, indicating movement of contaminants from the site. The public drinking water supply is protected, as it is drawn from a river above the contaminated area; however, direct contact with site contaminants is a possible health threat.

Cleanup Approach

This site is being addressed in two long-term remedial phases focusing on source control and groundwater cleanup, and the recovery of creosote oil and containment of residual contamination. This site has been transferred out of the EPA's Superfund program and is now being addressed under EPA's Resource Conservation and Recovery Act (RCRA).

Response Action Status

Source Control and Groundwater Cleanup: The EPA selected an interim remedy in 1986 to control the source of contamination and its effect on the groundwater. The remedy features an isolation system designed to keep contaminated groundwater and soil from moving off site while more permanent remedies are planned. This remedy also includes: realigning the Laramie River Channel 150 feet farther west from the site to reduce the chance of contamination; building a slurry wall through the soil and bedrock around contaminated areas; draining and pumping groundwater against its natural flow to keep it from seeping off site and through the slurry wall; treating withdrawn groundwater with activated carbon to decontaminate it; discharging this cleaned water into the Laramie River, under State and Federal permits; and monitoring the groundwater to track the effectiveness of the system. All site isolation activities have been completed. Operation and maintenance, as well as monitoring of the remedies, are taking place to ensure that site isolation activities continue to be effective.

Recovery and Containment: In 1990, Union Pacific began treatability studies, under EPA oversight, to determine if on-site recovery of creosote oil and bioremediation of contaminated soil and groundwater would be an effective remedy. These studies were completed in 1991. In 1992, Union Pacific conducted an investigation into the potential for the release of contaminants from the isolation system installed in 1986. The investigation showed the isolation system was effectively preventing the release of contaminants. A final remedy was selected for the site in 1991, which called for the use of a hydraulic slurry wall to contain contaminated materials, and the recovery of hundreds of thousands of gallons of creosote oil is being sent to other wood treating facilities around the country. This recovery process is expected to continue until 1998. In late 1994, a corrective action agreement was signed, whereby RCRA assumed control of future creosote oil recovery and agreed to cap the contaminated areas at the completion of the recovery process. In addition, RCRA will review the site every five years to ensure the effectiveness of the cleanup actions taken at this site.

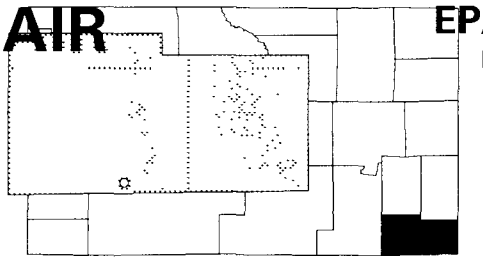
Environmental Progress

The cleanup actions to contain the source of contamination have been completed at the Baxter/Union Pacific Tie Treating site. Creosote oil recovery operations began in 1991 and are expected to continue until 1998. The creosote oil recovery process is now being addressed under the EPA's RCRA program. The site will be monitored every five years to ensure the effectiveness of the cleanup actions.

F.E. WARREN AIR FORCE BASE

WYOMING

EPA ID# WY5571924179



EPA REGION 8

Laramie County
Cheyenne

Site Description

The 5,866-acre F.E. Warren Air Force Base site initially began as a U.S. Army cavalry outpost in 1867 and has since served a number of military functions. In 1947, control of the facility was transferred to the U.S. Air Force; it became a Strategic Air Command base in 1958. Waste generation at the facility has consisted primarily of spent solvents from equipment cleaning and various maintenance operations. The Air Force also maintained an acid well for spent battery acid disposal. While 12 landfills are located at the facility and hold various wastes, only one landfill is presently in operation. Two fire protection training areas involved extensive use of various fuels and combustible materials for fire training exercises. Initially, 25 areas were identified where hazardous materials might have been used, stored, treated, or disposed of. Agricultural lands and industrial and residential developments surround the base. The City of Cheyenne borders the base on the east. Approximately 2,400 people draw drinking water from private deep aquifer wells. These wells are located within a 3 mile radius of hazardous substances on the base.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 02/21/90

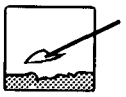
Threats and Contaminants

Contamination from trichloroethylene (TCE), gasoline, oils, hydraulic fluid, ethylene glycol, and battery acid was found in shallow groundwater zones and soils. TCE was found in surface water samples at various locations. Contaminated groundwater, discharging to surface waters (Crow and Diamond Creeks), is believed to be the TCE contamination source. Direct contact with contaminated groundwater, surface water, and soil may adversely affect human health.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status



Initial Actions: In 1986, the Air Force removed an acid disposal well system and an unknown amount of contaminated soil. In 1989, the Air Force removed a building drain sump, 3,000 gallons of contaminated liquid, 300 gallons of contaminated sludge, and 300,000 pounds of contaminated soil from an area known as Spill Site 7.

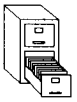
Entire Site: In 1993, a Federal Facility Agreement divided the entire site into ten cleanup areas. These consist of shallow and deep groundwater zones, the acid dry well area, four landfills, the fire training areas, the base firing range, and a munitions detonation area. A draft report from a site investigation conducted under the Installation Restoration Program (IRP) was completed and reviewed by the EPA and the State of Wyoming. Further investigations are needed to determine the extent of contamination in deeper groundwater zones. Also, the extent of potential or suspected surface contamination sources needs to be investigated further. The Air Force is currently preparing plans to conduct further site investigations of surface sources and to determine the extent of deeper groundwater contamination. Investigation activities at the acid dry well area were completed in 1992.

Site Facts: A Federal Facility Agreement was signed September 26, 1991, defining EPA and State involvement in future site investigations and cleanup actions. The Agreement divides the site into ten cleanup areas. F.E. Warren Air Force Base is participating in the IRP, a specially funded program developed in 1978 by the Department of Defense (DOD) to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

Environmental Progress

The initial actions to remove contaminated soil, sludge, and liquids have reduced the potential for exposure to hazardous substances at the F.E. Warren Air Force Base site while further studies are taking place and cleanup activities are being planned.

Site Repository

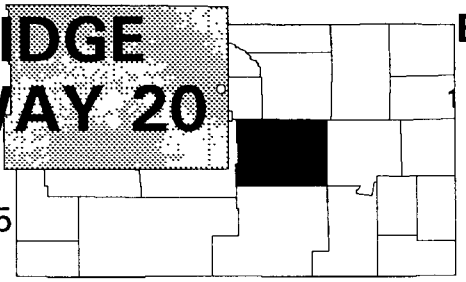


Laramie County Public Library, 2800 Central Avenue, Cheyenne, WY 82001

MYSTERY BRIDGE ROAD/HIGHWAY 20

WYOMING

EPA ID# WYD981546005



EPA REGION 8

Natrona County
1 mile east of Evansville

Other Names:
Brookhurst

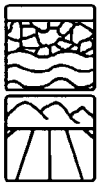
Site Description

The 450-acre Mystery Bridge Road/Highway 20 site is located adjacent to an oil refinery and other industries in the Brookhurst and Mystery Bridge Subdivisions. One area of the site, the KN Energy facility, serves as a natural gas processing operation. An unlined waste pond on this area was used from 1965 until 1984. Another area of the site operated as an oil field service and includes a former toluene storage area, a truck wash drain system, and an abandoned sump. In 1986, studies started in response to citizen complaints identified the presence of volatile organic compounds (VOCs) in area wells and drinking water. The Brookhurst Subdivision was developed during the mid-1970s and consists of about 100 homes, 90 of which were affected by contamination of drinking water wells. Domestic wells in the area tap into shallow groundwater. In 1988, a separate contaminated groundwater plume moving from the Little America Refining Co. (LARCO), an area adjacent to the Brookhurst property, was also identified.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 08/30/90

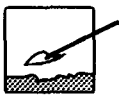
Threats and Contaminants



Groundwater and soil are contaminated with VOCs, hydrocarbons, and other hazardous substances. Drinking or coming into direct contact with contaminated groundwater is the greatest health threat to Brookhurst residents.

Cleanup Approach

Response Action Status



Initial Actions: In 1987, the EPA provided bottled water to 45 residences as an interim measure until the water distribution system was installed later in the year. Hookups to the drinking water system between Evansville and Brookhurst were completed in 1988. A sedimentation pond and intake structure modifications were built at the Evansville water treatment plant. In 1988, KN Energy removed 35 drums of liquid and sludge from the flare pit area and sent the drums off site to a disposal facility. KN Energy also installed a pump and treat system and soil vapor extraction system to control the release of contaminants into the groundwater. In 1988, The Dow Chemical Company and Dowell-Schlumberger removed 420 cubic yards of contaminated soil from the facility and installed a soil vapor extraction system to remove remaining contaminants in the soil.

Groundwater: In 1990, Dow, Dowell-Schlumberger, and KN Energy completed an investigation into the nature and extent of contamination at the site. Work performed during the investigation, including the installation of monitoring wells, soil vapor analysis, surface and sediment sampling, and the collection of water samples from monitoring wells, was completed in 1989. Three containment plumes were identified in the groundwater. In 1990, the EPA selected remedies to cleanup the groundwater that included: pumping of the first plume, which contains benzene, ethylbenzene, xylenes and toluene, and treatment using air stripping; and limited pumping of the second plume, which contains VOCs, and treatment using air stripping and reinjection of clean water into the aquifer. The third plume, from the LARCO area, is being addressed under the Resource Conservation and Recovery Act (RCRA). Both KN's and Dow/Dowell-Schlumberger's groundwater pump and treatment systems have been built and are in operation. Treatment will continue until established cleanup levels have been met.

Remaining Subsurface Contamination: To ensure that sources of further groundwater contamination in the form of highly contaminated soils do not remain, KN Energy and Dow/Dowell-Schlumberger conducted investigations of subsurface contamination. As a result, KN implemented a sparging program that enhanced the removal of the subsurface contaminants through the existing soil vapor extraction system. No additional actions beyond the sparging program are required to address the contamination.

Site Facts: In 1988, the EPA issued Consent Orders to three potentially responsible parties, KN Energy, Inc., Dow Chemical Co., and Dowell Schlumberger, Inc., requiring them to clean up two separate suspected sources of groundwater contamination and site contamination.

Environmental Progress 

Construction of all cleanup activities is complete. The provision of a municipal water supply and the removal of accessible surface contaminants have reduced the potential for exposure to hazardous substances at the Mystery Bridge Road/Highway 20 site. The operation of the two groundwater pump and treatment remedies is removing contaminants from the groundwater. Progress is further enhanced by operation of the air sparging and soil vapor extraction system at the KN Energy, Inc. property. It is anticipated that groundwater cleanup standards will be achieved through these operations.